

SDMS Doc ID 2000781

The Boeing Company 6633 Canoga Avenue P.O. Box 7922 Canoga Park, CA 91309-7922

CERTIFIED MAIL

August 21, 2003 In reply refer to 2003RC03105

Gerard Abrams
Calif. Environmental Protection Agency
Department of Toxic Substances Control
Region 1
Facility Permitting Branch
8800 Cal Center Drive
Sacramento CA 95826-3200

Subject: Santa Susana Field Laboratory Corrective Action Program Quarterly

Progress Reports for EPA ID Numbers CAD093365435 (Rocketdyne),

CA1800090010 (NASA) and CAD000629972 (DOE)

Dear Mr. Abrams:

The Boeing Company, Rocketdyne (Rocketdyne) has enclosed the following progress reports as required by Hazardous Waste Facility Post-Closure Permits for Rocketdyne and NASA at the Santa Susana Field Laboratory (SSFL). In addition, Rocketdyne has included a progress report for the DOE Corrective Action sites in Area IV. Rocketdyne has submitted the reports in the format as it appears in Attachment I of the Rocketdyne and NASA permits. This reporting period is from May 16, 2003 through August 15, 2003.

Should you have any comments, please do not hesitate to let me know. I can be reached at (818) 586-5695.

Sincerely,

Art Lenox

Environmental Remediation

AJL:bjc Enclosures

(SHEA-098159)

G. Abrams (2003RC03105) August 21, 2003 Page 2

cc:	A. Elliott/NASA	(with enclosures)
	D. Hambrick/MWH	(with enclosures)
	L. Barrett/DTSC	(without enclosures)
	S. Baxter/DTSC	(with enclosures)
	P. Batarseh/DTSC	(without enclosures)
	P. Bailey/DTSC	(with enclosures)
	K. Baker/DTSC	(with enclosures)
	M. Lopez/DOE/OAK	(with enclosures)
V	J. Beach/EPA	(with enclosures)
	R. Marshall/CSUN, Oviatt Library	(with enclosures)
	D. Redfield/Simi Valley Library	(with enclosures)
	J. Metzler/LA Public Library, Platt Branch	(with enclosures)



Santa Susana Field Laboratory RFI and CMS Projects Quarterly Progress Report EPA ID No. CAD000629972 (Department of Energy)

Rocketdyne Project Manager:

Art Lenox

Contractor Project Manager:

Dixie Hambrick

Report Period:

May 16 – August 15, 2003

1. PROGRESS MADE THIS REPORT PERIOD

No soil or surface water sampling was performed at DOE sites during this period for the RCRA Facility Investigation (RFI). To date, approximately 46 soil vapor (46 analyses) and 234 soil matrix/surface water samples (814 analyses) have been collected from DOE locations during the RFI program (Table 2).

Near-surface groundwater sampling was conducted this period (Table 1). A total of 6 near-surface groundwater samples were collected at and near DOE sites during this reporting period and analyzed at Ceimic Laboratories. To date, approximately 48 groundwater samples (152 analyses) have been collected from DOE locations during the RFI program (Table 2). Preparation of the Near-Surface Groundwater Characterization Report continued. This report will be comprehensive of the near-surface groundwater investigation findings at the SSFL.

The Building 56 Landfill (SWMU 4.2) work plan was approved by DTSC this period, and preparation for field work and installation of soil vapor probes began. Sampling will commence in mid-August.

A work plan to conduct industrial hygiene indoor air sampling was submitted to DTSC for review. Approval for the work plan was received from DTSC in early August. These data are being collected to support the Environmental Indicators (EI) review.

Preparation of the draft Former Sodium Disposal Facility (FSDF) (SWMU 7.3) RFI report continued, and work began on the draft Area IV Leach Fields (Area IV AOC) RFI report.

A draft Area IV RFI Site Data report was prepared and submitted to DTSC in July 2003 to support their review of DOE RFI site reports in Area IV.

DTSC, Rocketdyne, and MWH met several times this period to discuss the Building 56 investigation, EI review, RFI near-surface groundwater and soil investigations, risk assessments, DTSC Hazardous Materials Laboratory (HML) data validation of the RFI samples, preliminary draft RFI reports and the RFI report schedule.

RFI Quarterly Progress Report EPA No. CAD000629972 (Area IV) May 16 – August 15, 2003

Validation of recent soil and water samples and conducting a program quality assurance (QA) review of soil sampling data are ongoing.

Infiltration monitoring continued at FSDF (SWMU 7.3) this period.

2. SUMMARY OF FINDINGS

Volatile organic compounds (VOCs) were detected above California MCLs at or near the following DOE RFI sites: HMSA (Area IV AOC) and Building 383 Leach Field (Area IV AOC). These sampling results were similar to previous findings and will be summarized in the near-surface groundwater report.

3/4 SUMMARY OF PROBLEMS/ACTIONS TAKEN

MWH was notified on July 17, 2003 that the Ceimic Laboratory located in Rhode Island had not renewed their California certification in July 2002. Ceimic re-established their certification by August 1, 2003.

5. PROJECT ACTIVITY NEXT PERIOD

Boeing will be involved with the following RFI activities during the next period:

- Continue data validation for DOE sites
- Complete Near-Surface Groundwater Report
- Finalize the draft Surficial OU SRAM, Revision 1
- Conduct industrial hygiene indoor air sampling
- Implement the Building 56 Landfill work plan
- Finalize and submit the FSDF (SWMU 7.3) draft RFI site report
- Prepare the Area IV Leach Field (Area IV AOC) draft RFI site report
- Continue Infiltration Monitoring at FSDF

6. PERSONNEL CHANGES

Ms. Laura Rainey, a Registered Geologist with DTSC, has been assigned to the SSFL RFI project.

7. SUMMARY OF CONTACTS

None.

Ri - Quarterly Progress Report EPA No. CAD000629972 (Area IV) May 16 – August 15, 2003

8. TREATMENT SYSTEM EFFECTIVENESS

No soil remediation treatment systems are in place or operational at this time.

9. DATA REPORTS SUBMITTED

RCRA Facility Investigation Area IV Site Reports Data Addendum, Santa Susana Field Laboratory, Ventura County, California. *Draft*. July.

Work Plan to Support Environmental Indicator Determination: Industrial Hygiene Sampling for Volatile Organic Compounds in Indoor Air, Santa Susana Field Laboratory, Ventura County, California. August.

Table 1
DOE Sampling Summary
May 16, 2003 - August 15, 2003

UNIT	Facility	MATRIX	Total Samples	Total Analyses	VOA, 8260	PCBs, 8080/8082
Area IV	Various (6 wells)	GW	6	2	0	2
Total Near-Surface G	roundwater	GW	6	2	0	2
TOTAL			6	2	0	2
S = Soil V = Vapor	W = includes surface GW = Near-Surface	Ground Wat	er			
Note - includes QA san	nples (water, soil, var	or); does not	include sampl	es on hold.		

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Santa Susana Field Laboratory RFI and CMS Projects Quarterly Progress Report EPA ID No. CA1800090010 (NASA)

Rocketdyne Project Manager: Art Lenox

Contractor Project Manager: Dixie Hambrick

Report Period: May 16 – August 15, 2003

1. PROGRESS MADE THIS REPORT PERIOD

Limited sediment sampling was performed during this period for the RCRA Facility Investigation (RFI). This field effort was for perchlorate characterization near the Area II Landfill (SWMU 5.1). MWH collected a total of 16 soil matrix/surface water samples at one NASA site during this reporting period (Table 1). Soil matrix and surface water sample analysis was conducted by Del Mar Analytical, a California-certified laboratory located in Irvine, with split samples sent to Ceimic Laboratory, located in Rhode Island. To date, approximately 401 soil vapor (412 analyses) and 785 soil matrix/surface water samples (1260 analyses) have been collected from NASA locations during the RFI program (Table 2).

Near-surface groundwater sampling also was conducted this period (Table 1). A total of 16 near-surface groundwater samples were collected at and near NASA sites during this reporting period and analyzed at Ceimic Laboratories. To date, approximately 81 groundwater samples (131 analyses) have been collected from NASA locations during the RFI program (Table 2). Preparation of the Near-Surface Groundwater Characterization Report continued. This report will be comprehensive of the near-surface groundwater investigation findings at the SSFL.

The Area II Landfill (SWMU 4.2) investigation work plan was prepared and submitted to DTSC this period. DTSC comments on this work plan are anticipated in mid-September, and preparation for field work and installation of soil vapor probes has begun at the site due to the lateness of the summer season. (It is hoped that this investigation can be completed before the winter rainy season.) Boeing will address DTSC comments on this work plan and begin the full investigation of the landfill once approval is received.

A work plan to conduct industrial hygiene indoor air sampling was submitted to DTSC for review. Approval for the work plan was received from DTSC in early August. These data are being collected to support the Environmental Indicators (EI) review.

DTSC, Rocketdyne, and MWH met several times this period to discuss the EI review, RFI near-surface groundwater and soil investigations, risk assessments, DTSC Hazardous Materials Laboratory (HML) data validation of the RFI samples, preliminary draft RFI reports and the RFI report schedule.

RFI Quarterly Progress Report EPA No. CA1800090010 (Area II) May 16 – August 15, 2003

Validation of recent soil and water samples and conducting a program quality assurance (QA) review of soil sampling data are ongoing.

2. SUMMARY OF FINDINGS

Volatile organic compounds (VOCs) were detected above California MCLs at or near the following NASA RFI sites: Alfa (SWMUs 5.9, 5.10, and 5.11), Coca (SWMUs 5.18 and 5.19), SPA (Area II AOC), and the Building 515 Area (Area II AOC). Metals were also detected above their MCLs in the Building 515 Area (Area II AOC). These sampling results were similar to previous findings and will be summarized in the near-surface groundwater report.

3/4 SUMMARY OF PROBLEMS/ACTIONS TAKEN

MWH was notified on July 17, 2003 that the Ceimic Laboratory located in Rhode Island had not renewed their California certification in July 2002. Ceimic re-established their certification by August 1, 2003.

5. PROJECT ACTIVITY NEXT PERIOD

Boeing will be involved with the following RFI activities during the next period:

- Continue data validation for NASA sites
- Complete Near-Surface Groundwater Report
- Finalize the draft Surficial OU SRAM, Revision 1
- Conduct industrial hygiene indoor air sampling
- Implement the Area II Landfill work plan once approved by DTSC
- Prepare the Delta (SWMU 5.23) and R-2 Ponds (SWMU 5.26) draft RFI site reports

6. PERSONNEL CHANGES

Ms. Laura Rainey, a Registered Geologist with DTSC, has been assigned to the SSFL RFI project.

7. SUMMARY OF CONTACTS

None.

RFI Quarterly Progress Report EPA No. CA1800090010 (Area II) -May 16 – August 15, 2003

8. TREATMENT SYSTEM EFFECTIVENESS

No soil remediation treatment systems are in place or operational at this time.

9. DATA REPORTS SUBMITTED

RCRA Facility Investigation Work Plan Addendum Amendment, Area I and Area II Landfills Investigation Work Plan, SWMU 4.2 and 5.1, Santa Susana Field Laboratory, Ventura County, California. *Final*. June.

Work Plan to Support Environmental Indicator Determination: Industrial Hygiene Sampling for Volatile Organic Compounds in Indoor Air, Santa Susana Field Laboratory, Ventura County, California. August.

Table 1 NASA Sampling Summary May 16, 2003 - August 15, 2003

UNIT	Facility	MATRIX	Total Samples	Total Analyses	VOA, 8260	TPH, 8015	Metals, 6010/7000	Perchlorate, 300M/314.0
SWMU 5.1	Area II Landfill	W	16	16	0	0	0	16
Area II & III	Various (12 wells)	GW	16	20	16	1	3	0
Total Water		W	16	16	0	0	0	16
Total Near-Surface Gr	oundwater	GW	16	20	16	1	3	0
TOTAL			32	36	16	1	3	16
S = Soil V = Vapor Note - includes QA sam	W = includes surface v GW = Near-Surface G	round Water						

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Santa Susana Field Laboratory RFI and CMS Projects Quarterly Progress Report EPA ID No.CAD 093365435 (Rocketdyne)

Rocketdyne Project Manager: Art Lenox

Contractor Project Manager: Dixie Hambrick

Report Period: May 16 – August 15, 2003

1. PROGRESS MADE THIS REPORT PERIOD

Soil, surficial bedrock, and surface water sampling was performed during this period for the RCRA Facility Investigation (RFI). The majority of this field effort was for perchlorate characterization at and near the SSFL, primarily in the Happy Valley and Building 359 RFI sites (Area I Areas of Concern [AOCs]) in support of the proposed Interim Measure. In addition, perchlorate sampling was conducted in the north drainage of the SSFL, including the Area I Landfill RFI site (SWMU 4.1). MWH collected a total of 506 soil matrix/bedrock/surface water samples at four Rocketdyne sites and the northern drainage during this reporting period (Table 1). Soil matrix and surface water sample analysis was conducted by Del Mar Analytical, located in Irvine, and at Ceimic Laboratory, located in Rhode Island. To date, approximately 1117 soil vapor (1206 analyses) and 3240 soil matrix/bedrock/surface water samples (6360 analyses) have been collected from Rocketdyne locations during the RFI program (Table 2).

Near-surface groundwater sampling also was conducted this period (Table 1). A total of 43 near-surface groundwater samples were collected at and near Rocketdyne sites during this reporting period and analyzed at Ceimic Laboratories. To date, approximately 201 groundwater samples (313 analyses) have been collected from Rocketdyne locations during the RFI program (Table 2). Preparation of the Near-Surface Groundwater Characterization Report continued. This report will be comprehensive of the near-surface groundwater investigation findings at the SSFL.

A work plan to conduct perchlorate interim measures at the Happy Valley and Building 359 RFI sites was prepared and submitted to DTSC June 16, 2003. Agency review comments regarding this work plan were received in July, and an Work Plan Amendment is being prepared to address them. The Amendment will be submitted August 18, 2003 to DTSC.

The Area I Landfill (SWMU 4.2) investigation work plan was prepared and submitted to DTSC this period. DTSC comments on this work plan are anticipated in mid-September, and preparation for field work and installation of soil vapor probes has begun at the site due to the lateness of the summer season. (It is hoped that this investigation can be completed before the winter rainy season.) Boeing will address DTSC comments on this work plan and begin the full investigation of the landfill once approval is received.

RFI Quarterly Progress Report EPA No. CAD093365435 (Areas I, III and IV) May 16 – August 15, 2003

The draft B-1 Area (SWMU 4.1) RFI site report was finalized and submitted to DTSC in July. Preparation of the draft Instrument and Equipment Laboratories (SWMUs 4.3, 4.4) RFI report continued.

A draft Area IV RFI Site Data report was prepared and submitted to DTSC in July 2003 to support their review of Rocketdyne RFI site reports in Area IV.

A work plan to conduct industrial hygiene indoor air sampling was submitted to DTSC for review. Approval for the work plan was received from DTSC in early August. These data are being collected to support the Environmental Indicators (EI) review.

DTSC, Rocketdyne, and MWH met several times this period to discuss the Happy Valley Interim Measure, EI review, RFI near-surface groundwater and soil investigations, risk assessments, DTSC Hazardous Materials Laboratory (HML) data validation of the RFI samples, preliminary draft RFI reports and the RFI report schedule.

Validation of recent soil and water samples and conducting a program quality assurance (QA) review of soil sampling data are ongoing.

2. SUMMARY OF FINDINGS

Perchlorate was detected in soil leachate, surficial bedrock, and/or surface water samples collected at the Happy Valley and Building 359 RFI sites (Area I AOCs). These areas have been previously identified as known perchlorate use sites at the SSFL. Laboratory analyses and data review of sample results are continuing.

Volatile organic compounds (VOCs) were detected above California MCLs in near-surface groundwater samples collected at or near the following Rocketdyne RFI sites: CTL-III (SWMU 4.7), LETF/CTL-I (SWMU 4.12), Canyon (SWMU 4.14), Bowl (SWMU 4.15), Perimeter Pond (SWMU 4.17), ECL (SWMUs 6.1 and 6.3), Compound A (SWMU 6.4), and EEL (SWMU 6.9). Perchlorate was also detected above the regulatory action level at the LETF RFI site (SWMU 4.12). These sampling results were similar to previous findings and will be summarized in the near-surface groundwater report.

3/4 SUMMARY OF PROBLEMS/ACTIONS TAKEN

MWH was notified on July 17, 2003 that the Ceimic Laboratory located in Rhode Island had not renewed their California certification in July 2002. Ceimic re-established their certification by August 1, 2003.

5. PROJECT ACTIVITY NEXT PERIOD

Boeing will be involved with the following RFI activities during the next period:

- Continue data validation for Rocketdyne sites
- Complete Near-Surface Groundwater Report
- Finalize the draft Surficial OU SRAM, Revision 1
- Finalize the IEL (SWMUs 4.3/4.4) RFI site report
- Conduct industrial hygiene indoor air sampling
- Implement the Area I Landfill work plan once approved by DTSC
- Prepare and submit to DTSC an Amendment to the Happy Valley Work Plan Addendum
- Implement Happy Valley (including Building 359 AOC) Interim Measure Work Plan for perchlorate removal action

6. PERSONNEL CHANGES

Ms. Laura Rainey, a Registered Geologist with DTSC, has been assigned to the SSFL RFI project.

7. SUMMARY OF CONTACTS

None.

8. TREATMENT SYSTEM EFFECTIVENESS

No soil remediation treatment systems are in place or operational at this time.

9. DATA REPORTS SUBMITTED

- Happy Valley Interim Measures Work Plan Addendum, Happy Valley and Building 359 Areas of Concern, Santa Susana Field Laboratory, Ventura County, California. June.
- RCRA Facility Investigation Work Plan Addendum Amendment, Area I and Area II Landfills Investigation Work Plan, SWMU 4.2 and 5.1, Santa Susana Field Laboratory, Ventura County, California. *Final*. June.
- B-1 Area RCRA Facility Investigation Site Report, Santa Susana Field Laboratory, Ventura County, California. *Draft*. June.

RFI Quarterly Progress Report EPA No. CAD093365435 (Areas I, III and IV) May 16 – August 15, 2003

RCRA Facility Investigation Area IV Site Reports Data Addendum, Santa Susana Field Laboratory, Ventura County, California. *Draft*. July.

Work Plan to Support Environmental Indicator Determination: Industrial Hygiene Sampling for Volatile Organic Compounds in Indoor Air, Santa Susana Field Laboratory, Ventura County, California. August.

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UNIT	Facility	MATRIX	Total Samples	Total Analyses	VOA, 8260	SVOA, 8270	Metals, 6010/7000	Mercury, 7471A	ANIONS, 300	PCBs, 8080/8082	Perchlorate, 300M/314.0	1,4-Dioxane, 8260SIM	Gross Alpha/Beta, 900.0	Deuterium	Oxygen 18	TDS	TSS
Area I AOC	Building 359	S	3	3	0	0	0	0	0	0	3	0	0	0	0	0	0
Area I AOC	Building 359	W	71	71	0	0	0	0	0	0	71	0	0	0	0	0	0
Area I AOC	Happy Valley	R	16	16	0	0	0	0	0	0	16	0	0	0	0	0	0
Area I AOC	Happy Valley	S	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0
Area i AOC	Happy Valley	W	177	233	0	0	14	14	14	0	177	0	0	0	0	0	14
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Various	Northern Drainage	R	11	1	0	0	0	0	0	0	1	0	0	0	0	0	0
Various	Northern Drainage	W	117	120	0	0	0	0	7	0	101	0	0	6	6	0	0
Various	Northern Drainage (Seep/spr)	W	26	40	0	0	0	0	8	0	14	0	0	8	8	2	0
SWMU 4.2	Area I Landfill	W	17	17	0	0	0	0	0	0	17	0	0	0	0	0	0
Area IV AOC	SRE	S	1	1	0	0	0	0	0	1	0	0	0	0	0	0	С
Area I, III, & IV	Various (30 wells)	GW	43	49	37	1	1	0	0	0	4	6	1	0	0	0	0
Total Surficial bed	drock	R	17	17	0	0	0	0	0	0	17	0	0	0	0	0	0
Total Soil		s	8	8	0	0	4	0	0	1	3	0	0	0	0	0	0
Total Water		W	408	481	0	0	14	14	29	0	380	0	0	14	14	2	14
Total Near-Surfac	e Groundwater	GW	43	49	37	1	1	0	0	0	4	6	1	0	0	0	0
TOTAL	TOTAL		459	538	37	1	19	14	29	1	387	6	1	14	14	2	14
	W = includes surface water and lea]
V = Vapor	GW = Near-Surface Ground Water	·]
R = Surficial Bedroo]
Note - includes QA	samples (water, soil, vapor); does n	ot include sa	mples on hold.														

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OWNER/OPERATOR		Total Samples	Total Anaylses	VOA, 8260	TPH, 8015	VOA, 8021A	SVOA, 8270SIM	Metals, 6010/7000	Mercury, 7471A	Methyl Mercury	Silver, 7761	Lead	Beryffum	Hex Cr, 7196	Flouride, 340 2	ANIONS, 300	PH, 9040/9045	PCBs, 8080/8062	PCBs, 1668	Form, ASTIMD19	Perchlorate, 300M/314 0	Tributyl Sn	Dioxin, 8290	Dioxin, 1613B	Hydrazine	Ordnance, 8330	SPLP, 1312	Asbestos	LIPIDS	Toc		PAH, 8310 1.4-Dioxane, 8260SiM		Gamma Spec, 901 1		Oxygen 18	TOS	TSS	PAH, 429M
Rocketdyne		3240	6360	179	1094	646	548 1	2 94	73	3	10	3	2	84	175	213	739	122	18	193	672	2	120	10	14	130	78	0	2	8	1	2 1	1 !	5 5	1	9 19	7		
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Soil, water only - no vapor		No Eco Sample	es																																				\Box
No Task 203 samples (LUF		No background					-					↓	 									-																 	
No Bell Canyon samples includes all Ogden/MWH sa		No samples on	hoid	 						+	-	ļ		-	-	-	-		 		 -										\dashv						+	+	┼─┤
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